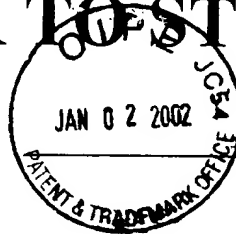


COPY OF PAPERS
ORIGINALLY FILED

DISK TO STIC

DATE:



Skater/A
B. Sec 9
PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Application of:

EDGAR B. CAHOON

CASE NO.: BB1465 US NA

APPLICATION NO.: 09/909,566

GROUP ART UNIT: 1645

FILED: JULY 20, 2001

EXAMINER: UNKNOWN

FOR: A CYTOCHROME P450 ENZYME
ASSOCIATED WITH THE SYNTHESIS OF
 Δ^{12} -EPOXY GROUPS IN FATTY ACIDS OF
PLANTS

**RESPONSE TO NOTICE TO FILE MISSING
PARTS OF APPLICATION-FILING DATE GRANTED**

Assistant Commissioner for Patents
Washington, DC 20231

Attention: Box Missing Parts

Sir:

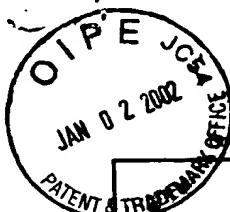
In response to the Notice to File Missing Parts of Application mailed October 2, 2001 (a copy of which is attached), enclosed is a Declaration for the above-referenced application. Please charge the \$130.00 surcharge fee applicable for filing the Declaration on a date later than the filing date to Deposit Account 04-1928 (E. I. du Pont de Nemours and Company). If the fee is insufficient or incorrect, please charge or credit the balance to the above-identified account.

Respectfully submitted,

Lynne M. Christenbury

LYNNE M. CHRISTENBURY
ATTORNEY FOR APPLICANT
REGISTRATION NO. 30,971
TELEPHONE: 302-992-5481
FACSIMILE: 302-892-1026

Dated: Nov 14, 2001



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

on November 14, 2001.
Date

COPY OF PAPERS
ORIGINALLY FILED

Lisa Z. Turner
Signature

LISA Z. TURNER

Type or printed name of person signing Certificate

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

09/909566
BB1465 US NA
RESPONSE TO NOTICE OF MISSING PARTS
COPY OF NOTICE OF MISSING PARTS
DECLARATION
POWER OF ATTORNEY (1)
FEE SHEET
CORRECTED SEQUENCE LISTING - CRF
CORRECTED SEQUENCE LISTING - PAPER COPY - 5 PAGES
STATEMENT UNDER 37 CFR 1.821(g) and 1.825(b)

**FEE TRANSMITTAL
for FY 2001**

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$) 130**Complete if Known**

Application Number	09/909,566
Filing Date	July 20, 2001
First Named Inventor	Edgar B. Cahoon
Examiner Name	Unknown
Group / Art Unit	1645
Attorney Docket No.	BB1465 US NA

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
Number

04-1928

Deposit
Account
Name

E. I. du Pont de Nemours and Company

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments
☒ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	740	201	370	Utility filing fee	
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	
SUBTOTAL (1)					(\$) 0

2. EXTRA CLAIM FEES

Total Claims		-20	=	0	X	18	=	0
Independent Claims		-3	=	0	X	84	=	0
Multiple Dependent					X	280	=	0

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim, if not paid
109	84	209	42	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge - late filing fee or oath	130.00
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,260	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 130

SUBMITTED BY

Name (Print/Type)

Lynne M. Christenbury

Registration No. Attorney/Agent

30,971

Telephone

302-992-5481

Signature

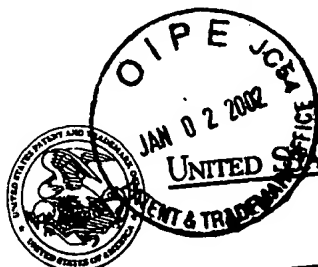
Lynne M. Christenbury

Date

Nov 14, 2001

WAF.1110: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



4 c/

APPLICATION NUMBER		FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/909,566		07/20/2001	Edgar B. Cahoon	BB1465 US NA

CONFIRMATION NO. .

FORMALITIES LETTER



23906
E I DU PONT DE NEMOURS AND COMPANY
LEGAL DEPARTMENT - PATENTS
1007 MARKET STREET
WILMINGTON, DE 19898

Date Mailed: 10/02

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.136(a) must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 130.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823. Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the sequence listing information recorded in computer readable form is identical to the written (hard copy or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

RAW SEQUENCE LISTING **ERROR REPORT**

BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/909,566

Source: O/PE

Date Processed by STIC: 8/2/2001

RECEIVED

OCT 09 2001

RECORDS
CENTER

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW:

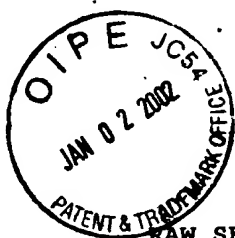
Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25. Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/909,566
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5* amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	



COPY OF PAPERS
ORIGINALLY FILED

OIPE

RAW SEQUENCE LISTING

DATE: 08/02/2001

PATENT APPLICATION: US/09/909,566

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set : N:\CRF3\08022001\I909566.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Cahoon, Edgar B
5 <120> TITLE OF INVENTION: A Cytochrome P450 enzyme associated with the synthesis of ?
2-epoxy
6 fatty acids
8 <130> FILE REFERENCE: BB1465 US NA
10 <140> CURRENT APPLICATION NUMBER: US/09/909,566
11 <141> CURRENT FILING DATE: 2001-07-20
13 <150> PRIOR APPLICATION NUMBER: 60/219833
14 <151> PRIOR FILING DATE: July 21, 2000 2001-07-21 ← use this date format
16 <160> NUMBER OF SEQ ID NOS: 7
18 <170> SOFTWARE: Microsoft Office 97
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 1733
22 <212> TYPE: DNA
23 <213> ORGANISM: Euphorbia lagascae
25 <400> SEQUENCE: 1
26 gcataaaagg aaaatggagc agaaaaatct ctcttttccg agcattttta taagttttct 60
27 gcttggttta atcttagtag tagtcatgag gttgtggaag aaacagaatc cacctccagg 120
28 gccatggaag tttcctatca taggtaatct tcctcattta ttactcaact ctgatctagg 180
29 ccatgaacgt ttttagagcct tggctcaaat ttatggacct gttatgagtc ttcaaattgg 240
30 ccaagtttca gctgtgtgca tttcttcagc tgaagcagcc aaagagggtta tgaaaactca 300
31 ggctgatgcc ttgcaccaac gccctatcgt cttggacgca cagattgtgt ttataatcg 360
32 gaaagatgtc ttgtttgett catatggaga tcaactggagg cagatgaaga aaatttggat 420
33 acttgaattt ctgagtgcc aaaaagttca atcctccagg ttaatccgag aggaagaaat 480
34 ggaggatgcc atcacattcc tccgttcgaa agccggatct ccggtcaata ttacaaagat 540
35 catttatggc attataattt cgatcatgat aagaacatcc gttggttaatt gtaagcaaaa 600
36 agaaagattg ctgagtgttg ccgatgcagt caatgaggca gcgacgagtt ttggcaccgc 660
37 agacgctttt ccgacgtgga aattacttca ctatatcatt ggagctgagt caaaaccag 720
38 gcgtttgcat caggagattg acgatatact tgaagagatt cttaatgaac acaaagccaa 780
39 taagcctttt gaagcggata acttaattgga tgttctattg aatcttcaaa aaaatggaaa 840
40 cgttccagtg ccagtgcaca acgaaagcat caaagcatcc gttttgcaaa tgtttactgc 900
41 cgggagcgaa acaacttcga aagctacaga atgggtaatg gcagagctga tgaaaaatcc 960
42 aactgaacta agaaaagcac aagaagaagt tagacaagta tttggtgaaa tgggaaaagt 1020
43 tgatgaatca agatttcatg atttgaaatt cttcaagtta gtggttaaag aaactctaag 1080
44 attacatcct ccggttgtct tgattccgag ggagtgtaga gaaacaacac gaattgatgg 1140
45 atatgaaatt catccgaaca ctccaattgt tgtgaatgct tgggcgatag gaagagatcc 1200
46 taatacttgg tcggaacctg gaaagttaa cccagaaagg tttaaagatt gtgcaattga 1260
47 ttataaaggg acgacatttg aactggtacc atttgggtgca ggaaaaagaa tatgtcctgg 1320
48 cattacttca gctattacca atttggagta tgtcattata aatctattat atcattttta 1380
49 ttgggaactg gccgatggaa ttacacctca aacacttgat atgactgaag ctattggcgg 1440
50 tgctctcagg aaaaaaatag atcttaagtt gattcctatt ccatatcaag ttagcttagg 1500
51 ctcaaataat tcttgattac ataggagggt tgaaatatat ataataaact ttaattaacg 1560
52 atgttctaata atgggttggg tgagttataa taggttttcc accgatcata taagtagcct 1620
53 tctttgatgg atgggttaga ttataatgag ttgtgggttg gatttttaga tgggttaaat 1680
54 gatttggatg gataataata aattgaaatg ttttctttt caaatccgaa aaa 1733
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 500
59 <212> TYPE: PRT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

```

60 <213> ORGANISM: Euphorbia lagascae
62 <400> SEQUENCE: 2
63 Met Glu Gln Lys Asn Leu Ser Phe Pro Ser Ile Leu Ile Ser Phe Leu
64 1 5 10 15
66 Leu Val Leu Ile Leu Val Val Val Met Arg Leu Trp Lys Lys Gln Asn
67 20 25 30
69 Pro Pro Pro Gly Pro Trp Lys Phe Pro Ile Ile Gly Asn Leu Pro His
70 35 40 45
72 Leu Leu Leu Thr Ser Asp Leu Gly His Glu Arg Phe Arg Ala Leu Ala
73 50 55 60
75 Gln Ile Tyr Gly Pro Val Met Ser Leu Gln Ile Gly Gln Val Ser Ala
76 65 70 75 80
78 Val Val Ile Ser Ser Ala Glu Ala Ala Lys Glu Val Met Lys Thr Gln
79 85 90 95
81 Ala Asp Ala Phe Ala Gln Arg Pro Ile Val Leu Asp Ala Gln Ile Val
82 100 105 110
84 Phe Tyr Asn Arg Lys Asp Val Leu Phe Ala Ser Tyr Gly Asp His Trp
85 115 120 125
87 Arg Gln Met Lys Lys Ile Trp Ile Leu Glu Phe Leu Ser Ala Lys Lys
88 130 135 140
90 Val Gln Ser Ser Arg Leu Ile Arg Glu Glu Glu Met Glu Asp Ala Ile
91 145 150 155 160
93 Thr Phe Leu Arg Ser Lys Ala Gly Ser Pro Val Asn Ile Thr Lys Ile
94 165 170 175
96 Ile Tyr Gly Ile Ile Ile Ser Ile Met Ile Arg Thr Ser Val Gly Asn
97 180 185 190
99 Cys Lys Gln Lys Glu Arg Leu Leu Ser Val Ala Asp Ala Val Asn Glu
100 195 200 205
102 Ala Ala Thr Ser Phe Gly Thr Ala Asp Ala Phe Pro Thr Trp Lys Leu
103 210 215 220
105 Leu His Tyr Ile Ile Gly Ala Glu Ser Lys Pro Arg Arg Leu His Gln
106 225 230 235 240
108 Glu Ile Asp Asp Ile Leu Glu Glu Ile Leu Asn Glu His Lys Ala Asn
109 245 250 255
111 Lys Pro Phe Glu Ala Asp Asn Leu Met Asp Val Leu Leu Asn Leu Gln
112 260 265 270
114 Lys Asn Gly Asn Val Pro Val Pro Val Thr Asn Glu Ser Ile Lys Ala
115 275 280 285
117 Ser Val Leu Gln Met Phe Thr Ala Gly Ser Glu Thr Thr Ser Lys Ala
118 290 295 300
120 Thr Glu Trp Val Met Ala Glu Leu Met Lys Asn Pro Thr Glu Leu Arg
121 305 310 315 320
123 Lys Ala Gln Glu Glu Val Arg Gln Val Phe Gly Glu Met Gly Lys Val
124 325 330 335
126 Asp Glu Ser Arg Phe His Asp Leu Lys Phe Phe Lys Leu Val Val Lys
127 340 345 350
129 Glu Thr Leu Arg Leu His Pro Pro Val Val Leu Ile Pro Arg Glu Cys
130 355 360 365
132 Arg Glu Thr Thr Arg Ile Asp Gly Tyr Glu Ile His Pro Asn Thr Arg

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/909,566

DATE: 08/02/2001

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

```

133      370      375      380
135 Ile Val Val Asn Ala Trp Ala Ile Gly Arg Asp Pro Asn Thr Trp Ser
136 385      390      395      400
138 Glu Pro Gly Lys Phe Asn Pro Glu Arg Phe Lys Asp Cys Ala Ile Asp
139      405      410      415
141 Tyr Lys Gly Thr Thr Phe Glu Leu Val Pro Phe Gly Ala Gly Lys Arg
142      420      425      430
144 Ile Cys Pro Gly Ile Thr Ser Ala Ile Thr Asn Leu Glu Tyr Val Ile
145      435      440      445
147 Ile Asn Leu Leu Tyr His Phe Asn Trp Glu Leu Ala Asp Gly Ile Thr
148      450      455      460
150 Pro Gln Thr Leu Asp Met Thr Glu Ala Ile Gly Gly Ala Leu Arg Lys
151 465      470      475      480
153 Lys Ile Asp Leu Lys Leu Ile Pro Ile Pro Tyr Gln Val Ser Leu Gly
154      485      490      495
156 Ser Asn Ile Ser
157      500
160 <210> SEQ ID NO: 3
161 <211> LENGTH: 502
162 <212> TYPE: PRT
163 <213> ORGANISM: Capsicum annuum
165 <400> SEQUENCE: 3
166 Met Glu Ile Gln Phe Thr Asn Leu Val Ala Phe Leu Leu Phe Leu Ser
167 1 5 10 15
169 Ser Ile Ile Leu Leu Leu Lys Lys Trp Lys Thr Gln Lys Leu Asn Leu
170 20 25 30
172 Pro Pro Gly Pro Trp Lys Leu Pro Phe Ile Gly Ser Leu His His Leu
173 35 40 45
175 Ala Val Ala Gly Pro Leu Pro His His Gly Leu Lys Asn Leu Ala Lys
176 50 55 60
178 Leu Tyr Gly Pro Leu Met His Leu Arg Leu Gly Glu Ile Pro Thr Val
179 65 70 75 80
181 Ile Ile Ser Ser Pro Arg Met Ala Lys Glu Val Leu Lys Thr His Asp
182 85 90 95
184 Leu Ala Phe Ala Thr Arg Pro Lys Leu Val Val Ala Asp Ile Val His
185 100 105 110
187 Tyr Asp Ser Thr Asp Ile Ala Phe Ser Pro Tyr Gly Glu Tyr Trp Arg
188 115 120 125
190 Gln Ile Arg Lys Ile Cys Ile Leu Glu Leu Leu Ser Ala Lys Met Val
191 130 135 140
193 Lys Phe Phe Ser Ser Ile Arg Gln Asp Glu Leu Ser Met Met Val Ser
194 145 150 155 160
196 Ser Ile Arg Thr Met Pro Asn Phe Pro Val Asn Leu Thr Asp Lys Ile
197 165 170 175
199 Phe Trp Phe Thr Ser Ser Val Thr Cys Arg Ser Ala Leu Gly Lys Ile
200 180 185 190
202 Cys Arg Asp Gln Asp Lys Leu Ile Phe Met Arg Glu Ile Ile Ser
203 195 200 205
205 Leu Thr Gly Gly Phe Ser Ile Ala Asp Phe Phe Pro Thr Trp Lys Met

```

RAW SEQUENCE LISTING

DATE: 08/02/2001

PATENT APPLICATION: US/09/909,566

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

```

206      210      215      220
208 Leu His Asp Val Gly Gly Ser Lys Thr Arg Leu Leu Lys Ala His Arg
209 225      230      235      240
211 Lys Ile Asp Glu Ile Leu Glu His Val Val Asn Glu His Lys Gln Asn
212      245      250      255
214 Arg Ala Asp Gly Gln Lys Gly Asn Gly Glu Phe Gly Gly Glu Asp Leu
215      260      265      270
217 Ile Asp Val Leu Leu Arg Val Arg Glu Ser Gly Glu Val Gln Ile Ser
218      275      280      285
220 Ile Thr Asp Asp Asn Ile Lys Ser Ile Leu Val Asp Met Phe Ser Ala
221      290      295      300
223 Gly Ser Glu Thr Ser Ser Thr Thr Ile Ile Trp Ala Leu Ala Glu Met
224 305      310      315      320
226 Met Lys Lys Pro Ser Val Leu Ala Lys Ala Gln Ala Glu Val Arg Gln
227      325      330      335
229 Val Leu Lys Glu Lys Lys Gly Phe Gln Gln Ile Asp Leu Asp Glu Leu
230      340      345      350
232 Lys Tyr Leu Lys Leu Val Ile Lys Glu Thr Leu Arg Met His Pro Pro
233      355      360      365
235 Ile Pro Leu Leu Val Pro Arg Glu Cys Met Lys Asp Thr Lys Ile Asp
236      370      375      380
238 Gly Tyr Asn Ile Pro Phe Lys Thr Arg Val Ile Val Asn Ala Trp Ala
239 385      390      395      400
241 Ile Gly Arg Asp Pro Glu Ser Trp Asp Asp Pro Glu Ser Phe Ser Pro
242      405      410      415
244 Glu Arg Phe Glu Asn Ser Ser Val Asp Phe Leu Gly Ser His His Gln
245      420      425      430
247 Phe Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Pro Gly Met Leu Phe
248      435      440      445
250 Gly Leu Ala Asn Val Gly Gln Pro Leu Ala Gln Leu Leu Tyr His Phe
251      450      455      460
253 Asp Arg Lys Leu Pro Asn Gly Gln Ser His Glu Asn Leu Asp Met Thr
254 465      470      475      480
256 Glu Ser Pro Gly Ile Ser Ala Thr Arg Lys Asp Asp Leu Val Leu Ile
257      485      490      495
259 Ala Thr Pro Tyr Asp Pro
260      500

```

263 <210> SEQ ID NO: 4

264 <211> LENGTH: 51

265 <212> TYPE: DNA

266 <213> ORGANISM: synthetic construct

268 <400> SEQUENCE: 4

269 tcaaggagaa aaaaccccg atccatggag cagaaaaatc tctcttttcc g

51

272 <210> SEQ ID NO: 5

273 <211> LENGTH: 35

274 <212> TYPE: DNA

275 <213> ORGANISM: synthetic construct

277 <400> SEQUENCE: 5

278 ggccagtga ttgtaatacg actcactata gggcg

35

inserted - see item 10 on Env Summary Sheet

RAW SEQUENCE LISTING

DATE: 08/02/2001

PATENT APPLICATION: US/09/909,566

TIME: 11:03:33

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

281 <210> SEQ ID NO: 6
282 <211> LENGTH: 35
283 <212> TYPE: DNA
284 <213> ORGANISM: synthetic construct
286 <400> SEQUENCE: 6
287 gcggccgcga attcggaaaa tggagcagaa aaatc 35
290 <210> SEQ ID NO: 7
291 <211> LENGTH: 35
292 <212> TYPE: DNA
293 <213> ORGANISM: synthetic construct
295 <400> SEQUENCE: 7
296 gcggccgcgg atccttagaa catcgtaaat taaag 35

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/909,566

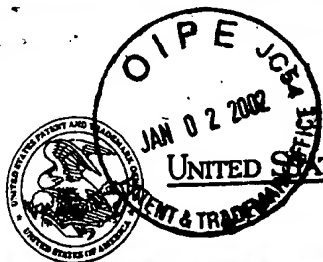
DATE: 08/02/2001

TIME: 11:03:34

Input Set : A:\BB1465 US NA Seq Listing.txt

Output Set: N:\CRF3\08022001\I909566.raw

..10 M:270 C: Current Application Number differs, Replaced Application Number
..11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
..14 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD



UNITED STATES PATENT AND TRADEMARK OFFICE

 COMMISSIONER FOR PATENTS
 UNITED STATES PATENT AND TRADEMARK OFFICE
 WASHINGTON, D.C. 20231
 www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/909,566	07/20/2001	Edgar B. Cahoon	BB1465 US NA

COPY OF PAPERS
ORIGINALLY FILED

CONFIRMATION NO. 4352

FORMALITIES LETTER


 23906
 E I DU PONT DE NEMOURS AND COMPANY
 LEGAL DEPARTMENT - PATENTS
 1007 MARKET STREET
 WILMINGTON, DE 19898

RECEIVED

OCT 09 2001

Date Mailed: 10/02/2001

 PATENT RECORDS
 CENTER
 NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

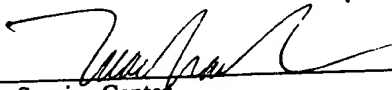
An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 130.
- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

*A copy of this notice **MUST** be returned with the reply.*



Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

77
17
10/21
10/21
10/21
10/21